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THE GENESEE FARMER.

SATURDAY, OCTOBER 19, 1839.

Agricultural Journals and Agency.

In the current volume of the Farmer we have given a list of all the ascertained agricultural papers of the United States; and now, in order to aid in the diffusion of Agricultural Knowledge, and accommodate such of our friends as wish to receive them, we state that we will receive subscriptions for any of the journals mentioned below, or such other papers devoted to agriculture, as may be requested.

The FARMER'S REGISTER, Petersburg, Virginia. Monthly, $5.

The NEW ENGLAND FARMER, Boston, Mass. Weekly, $2.

The FARMER'S CABINET, Philadelphia, Pa. Monthly, $1.

The CULTIVATOR, Albany, N. Y. Monthly, $1.

The RURAL LIBRARY, New-York. Monthly, $3.

The YANKEE FARMER, Portland, Maine. Weekly, $2.

The MAINE FARMER, Winthrop, Maine. Weekly, $2.

The SOUTHERN CULTIVATOR, Columbia, Tenn. Semimonthly, $2.

The BOSTON CULTIVATOR. Weekly, $2.

The FRANKLIN FARMER, Frankfort, Ky. Weekly, $2.

The AMERICAN FARMER, Baltimore. Weekly, $2,50.

The FARMER'S MONTHLY VISITOR, Concord, N. H. Monthly, 75 cents.

The JOURNAL OF THE AMERICAN SILK SOCIETY, Baltimore. Monthly, $2.

THEORY OF EXCRETION.

It is certainly very desirable, that the causes which render a rotation of crops necessary to a successful course of agriculture, should be clearly and satisfactorily ascertained. That such a rotation in cropping is now necessary, none can doubt; and if the causes could be known, they might probably be counteracted, and this necessity made to cease. Practical and theoretical farmers, as well as scientific men, have been divided in sentiment on the usually assigned causes, one of which is, an exhaustion of the proper food of the plant from the soil, by a continued cultivation of the same plant; and the other of which is founded on the doctrine that plants exude from their roots certain substances, poisonous to plants of the same variety, which in time renders the earth unfit for their cultivation. This, which was first brought to notice by Decandolle, and defended with great ability by Macaire, is called the theory of Excretion. With the general principles of the theory of exhaustion every farmer is fully acquainted; it is on these principles the doctrine of manures is supposed to rest, and he is daily acquainted with their development in his practice: the principles involved in the theory of excretion are comparatively new; and in order to give the means of forming a comparative estimate of the value of the different systems, we condense from the Quarterly Journal of Agriculture, a translation of the celebrated paper of M. Macaire, in which the theory and the reasons for its support are well set forth.

In order to determine whether there was any exudation or excretion from the roots of plants, M. Macaire carefully raised from the earth such as he deemed most suitable for his purpose, washed them minutely and perfectly in pure rain water, and then placed them in bottles or vials filled with water, the purity of which had been ascertained, and in which they vegetated and blossomed freely; being changed as fast as symptoms of decay appeared. The *chondrilla muralis*, was treated in this way, and after eight days, the water acquired a yellow tint, and a strong odor, similar to that of opium, and a bitter and rather pungent taste. The usual reagents precipitated substances from the water in considerable quantities; and evaporation left a residuum of a brownish red color.

To determine whether the exudation was from the roots of the plants or from the stems, the roots of the *chondrilla* were placed in one vial, and the stems and leaves in another. These continued fresh and in flower, but the water was not charged with any remarkable color, had no taste or smell resembling opium, and showed no precipitules. From the roots, exudation took place as before, thus rendering it certain that the coloring, bitter substance was an excretion from the roots. Another series of experiments was made to determine whether the exudation from the roots took place at any particular time, or was most abundant at night or by day, and the result showed conclusively that the excretions from the roots principally took place during the night. This result was expected from the known fact, that by day the action of the light causes the roots of the plants to absorb the liquid that contains their nourishment; and it was therefore rational to suppose that excretion would take place during the time that absorption ceased.

A series of experiments were now instituted by M. Macaire to ascertain, whether, when plants were placed in situations where substances not fit for nutritive purposes, or fatal to their existence, would be absorbed by the roots, would not be excreted, or rejected from circulation.

Some plants of annual mercury were carefully taken up and washed, and one part of the roots of each plant was placed in a solution of acetate of lead, and the other portion in pure water. They lived several days, after which an examination of the pure water, by the usual re-agents, showed a considerable quantity of lead, that had been evidently taken up by the roots from the solution of lead, and after being carried into the circulation, thrown out and rejected by the part placed in the pure water. This experiment repeated with other substances, seemed to show that plants had the power of separating, by circulation, articles taken up by their roots, but which were not required for nutriment, or were pernicious in effect. A plant was kept for some time in lime water, then taken out and washed until no trace of lime was visible, then transferred to pure water, into which it discharged from the roots a great quantity of lime, as was demonstrated by reactives.

Having settled these several points of the investigation, M. Macaire proceeded to the examination of the plants most commonly cultivated, in order to ascertain the nature and effect of the substances excreted from them. The first class of cultivated plants examined, were the *Lequminosæ*, of which the kidney bean, pea, and common bean, were submitted to the processes before described. These plants developed themselves well in rain water, and the excretion from all was abundant; resembling in its character, when obtained by slow evaporation, the same general appearances, and the tests used proved the qualities to be substantially the same.

It was in the course of his experiments on the lequminous plants, that Macaire found reasons for believing the correctness of M. Decandolle's intimation respecting the effect which a succession of plants of the same kind might have on the soil. In proceeding with these plants, M. M. found that when the water in which they had been kept was highly charged with this excrementitious matter, that fresh flowers of the same species that were put into it, quickly faded, and did not live well in it. In order to determine whether the death or fading of the plants was occasioned by the want of carbonic acid, or some similar cause, or by the excreted matter, M. Macaire replaced the lequminous plants by those of another family, especially that of corn. The latter lived and flourished, and the yellow coloring matter of the water diminished in intensity, the residuum became less, and it was thus evident that the new plant absorbed and fed on part of the substances excreted or rejected by the former. This, it is true, was a rotation of crops in a bottle, but it served to give more confidence in the theory of M. Decandolle, as to the causes that render rotation necessary. According to the quantity of matter excreted by the several plants named above, beans would give the best wheat, peas next, and then the kidney bean.*

From the lequminous plants, M. Macaire next proceeded to the *Graminæ*, of which he examined wheat, rye and barley. These plants did not thrive well in rain water, a fact attributed by him to the great quantity of mineral substances, especially silex, which these plants contain, and which they cannot imbibe from pure water. The water in which they vegetated was clear, transparent, without taste or smell. The reactives proved, however, the presence of salts, muriates and carbonates,—alkaline and earthy; with but a small proportion of gummy matter, no oily matter, and the aforesaid salts. M. M. adds—

"I should be led to believe that the exudation from the roots of these plants, scarcely tends farther than to reject the saline matter which is foreign to vegetation."†

M. M. says—"The only plant of the *Solaneæ* family that I experimented upon was the potato. It lived well in rain water, and developed its leaves. The water not colored, leaves very little residuum, and the taste is very slight, which makes me think that the plant is one of those of which the excretions are very trifling, and scarcely perceptible."‡

The conclusion of the memoir is as follows:

"In concluding this paper, which should have contained the examination of more families, had time permitted, I shall recount that the results are,—1st. That most vegetables exude by their roots substances useless to vegetation; 2d. That the nature of these substances vary according to the families of the vegetables that produce them; 3d. That some being pungent and resinous may hurt, and others being sweet and gummy, may contribute to the nourishment of other individuals; 4th. That these facts tend to confirm the theory of the rotation of crops suggested by M. Decandolle."

Preventing Smut.

Brining wheat, and then rolling it in lime, has been the usual custom of preparing seed wheat in this country, and with the most beneficial results. The process of brining frees it from many light grains and foul seeds, and the lime unquestionably exerts a favorable influence on the vegetation and growth of the plant. Does not a chemical change take place to some extent from the

* In this country, the bean is not cultivated in sufficient quantity to test its qualities as a crop to precede wheat; but the pea is considered superior to any other preceding crop for wheat, and is the one most generally used; thus far bearing out the opinion of Macaire. —ED. FARMER.

† Would not this fact of the small excretions from grain plants in part explain the reason why some of them, particularly the oat, and in some instances wheat, have been cultivated on some soils for a number of years in succession. At the same time it must be admitted, that the fact of some soils being extra provided with the principles necessary to the growth and perfection of the *gramina*, would account for the continued succession of the same kind of crop, perhaps, equally well, or better than the theory of M. Macaire.—ED. FARMER.

‡ That roots exhaust soils of the matter suitabe for their nutrition, or that they excrete matters unfavorable to a succession of the same kind of plants, we think, the experience of most farmers will satisfy them. On a piece of ground of about half an acre, because it was conveniently situated for that use, we have had five crops of roots in succession—three of ruta baga, and two of potatoes. The last crop of ruta baga was a failure, being all leaves and no bottoms; and the last growth of potatoes was of a very inferior quality, small and not half a crop, while those grown on other parts of the farm were of the best quality. The ground for all these crops was well manured, with either hog or stable manure.—ED. FARMER.

union of the salt and the lime, the result of which is soda, one of the most efficient fertilizers in the world? In England, the use of lime and brine is, however, partly superseded by the use of *blue vitriol*, in a solution of which the seed is steeped. Speaking of this wash, a writer in a London publication says—

"Since 1836, I have used the vitriol only, and the result has been, that in my crop of 1838 I could not discover more than six ears of smut, and in the present crop I have not been able to see one, although I have made diligent search. My managing man has found three smut ears only in ninety acres of various kinds of wheat, viz: Whittington, Brown's, Chevalier, Taunton velvet hull, Lammas and Talavera; a freedom from smut I could never reach from the use of brine and lime."

VARIETIES OF WHEAT.

At the first meeting of the English Agricultural Society, the first prize of twenty sovereigns, (or about 97 dollars,) was awarded to Col. Le Conteur for his account of the most approved varieties of wheat cultivated in England. Col. Le Conteur has doubtless paid more attention to wheat, and made more accurate experiments in its cultivation, than any other person living, and his opinions are therefore entitled to great weight. We condense from the remarks of Lord Spencer, the President of the Society, a sketch of the favorite kinds, with some other particulars.

The first kind, or the one deemed the most valuable, was the Hoary White or Velveteen, from the chaff having a downy or velvet feel. This wheat, after being repeatedly washed in brine that would float an egg or a potato, was again washed in lime. The land was argillaceous, and had been well manured with dung, and prepared with the ashes of sea-weed and lime, in places that seemed to require such a dressing. The seed was sown on the 29th of January, two bushels per acre, and was harvested the 16th of August. The average produce was 48 bushels of 62 lbs. each. This produced of fine flour 2,402 lbs., pollard 126 lbs. and of bran 416 lbs. The estimated clear profit of an acre of this wheat was £15 6*s.* 9*d.*

The next variety in quality and value was the Jersey Dantzic, but known in different places by various names. This wheat has a smooth chaff, and is not liable to smut. It ripens a week earlier than the velveteen; but in a wet, warm season is considered subject to rust. The produce of an acre of this wheat was 43⅓ bushels, with 430 lbs. of chaff, and 4,681 lbs. of straw. Eighteen pounds of the flour made a loaf of 25¾ lbs. weight, thus proving its value for making bread, as absorbing and combining with nearly one-half its weight of water. The average profit per acre of this wheat is estimated at £12 14*s.* 6*d.*

The third variety was the Whittington, which was sown in drills three inches apart, on land that had borne potatoes the previous year, subsequently to which it had been dressed with lime and sea-weed ashes. The wheat was 29 days coming up, but the crop was abundant, the straw being generally six feet, and some of it seven feet in height. It ripens some ten days later than the Dantzic wheat, but does not degenerate. The average produce per acre was 33 bushels, with 483 lbs. of chaff, and 7,786 lbs. of straw; the latter being greater in amount than in any other species but one. There were obtained from one acre 1,454 pounds of flour, 477 lbs. of bran, and 47 lbs. of pollard. "The bread made from it is dark, but it keeps well for several days." The profits of this wheat per acre are estimated at £12 11*s.*

The fourth variety noticed was the Talavera Bellevue, sown on the 3d of February on a light rich loamy soil, 3 bushels per acre, in drills. The seed being very large an extra quantity is required. It is hardy, appearing above the ground in 25 days; and is no more subject to disease than the generality of white wheats.—On account of the weight of the ear, this wheat is liable to lodge, or be driven down by the wind. The produce was 52 bushels per acre, or 3,172 lbs. of grain, 282 lbs. of chaff, and 5,480 lbs. of straw. There were 2,495 lbs. flour, 38 lbs. of pollard, and 588 lbs. of bran. This wheat makes a fine white bread. The profits per acre was estimated at £16 1*s.*

Some other kinds were noticed, as the Golden Drop, very productive; the Common Prolific, a coarse wheat; and Brown's Prolific, a good wheat on soils suitable to its growth; but all, in the opinion of Col. Le. C., yielding in value to the four first varieties named. From the amount stated as the average of the crops, it would not seem to exceed that of many fields in the Genesee country; though the general average in England is far greater than in the United States. Of the four varieties preferred, the Whittington, from which so much has been expected in this country, stands the lowest in the scale of productiveness. From what we had heard of the quality of the berry of this wheat, as exhibited in the specimens imported by Mr. Thorburn, we were not prepared to find it a wheat that would make 'dark bread,' which it seems is the fact. The incidental remarks on the time of sowing these wheats, and the period elapsing before vegetation, will explain in part the mistake into which the purchasers of the Whittington wheat have fallen in this country, in supposing it to be a spring wheat in one sense of the term. The English farmers sow wheat from September to April; and the wheats sown during the winter, as they do not vegetate or come forward till March, are called spring wheats, in distinction from those sown in September or October, and vegetating immediately. The spring wheats, properly so called, are there usually sown in April. The average temperature of Great Britain is much lower than with us, consequently grain of all kinds ripen more slowly, and the harvest is proportionably later than with us in the United States.

There can be no doubt that new and valuable varieties of wheat can be produced by skillful cultivation; and though it is not probable that all the most esteemed varieties in Great Britain would succeed well in this country, or prove as valuable in our climate as in theirs, still we think well of the efforts made to introduce the most approved kinds, and do not question that our farmers will find their interest in so doing. In all attempts to cultivate English wheat in this country, however, the difference between our seasons and theirs must be borne in mind, or the sowing will take place at improper times, and certain disappointment be the result to the cultivator.

PREPARATION FOR WINTER.

Most farmers, or many farmers at least, seem to suppose that when they have gathered the harvest of one year, and put in the seed for another; when their grain is threshed and marketed, and their roots gathered and in the cellar; when their beef is fatted and killed, and their pork in the barrel, that their business for the year is done, that their time is their own, and they can spend it as they please. Such is not exactly our view of the matter. We once heard a talented, but somewhat eccentric clergyman remark, that many very good people talked and acted as though they should have nothing to do in heaven but to lie in bed and sing psalms; while he thought enough would be found to be done even there; and we imagine that the farmer who understands his true interests will find enough to keep him busy, after he has attended to the things mentioned above. Suppose we make a few inquiries of the farmer, merely to illustrate our meaning: and first—

Are your ploughed lands in a situation to successfully resist the rains and floods of the winter and spring? Too many leave their ploughed, and even their sown, lands without any precautions to prevent their washing or being flooded. One of the last things, previous to the setting in of winter, should be a thorough clearing out of all the water furrows, and an examination of drains, to see that no obstructions to a free passage of waters exist. In consequence of a neglect of this precaution, large parts of some lands are covered with stagnant water, the grain and grass killed or injured, and vast quantities of the most friable and valuable parts of the soil carried off to the highways, swamps or rivers, and thus lost to the farm. Look then to your drains and to your water courses.

Are your buildings in that state of repair, that the approach of winter demands? Every farmer is aware, that a few openings in the roof of his barns, by the displacement of a few shingles, by letting in wet, will render worthless perhaps a ton of hay, or half a dozen bushels of grain—that the doors, if left without proper hinges and fastenings, get his animals into mischief, and are liable to be broken by the winds—that a board or clapboard fallen off and not replaced, will cause the exposed timbers to rot, and the building to decay—that a broken pane of glass in a kitchen window, will lower the temperature of a room so much as to require an extra cord of wood at least during the winter, besides an application of hats and petticoats, that might be more usefully employed elsewhere, yet the state of many of our farm buildings proves that these repairs, so necessary for winter, are forgotten or overlooked. Look, then, to your buildings and see that all is in order.

Have you a supply of good seasoned wood for winter's use? The miserable practice of having dry wood for summer, and green wood in winter, is too common among farmers. We get our wood in the winter season, enough perhaps to last till winter comes again, and think we do well, and this course gives us dry wood in summer and green wood again in winter. Our stock of seasoned wood should last till May, instead of being exhausted in November. Reader, if you are condemned to burn bad wood this winter, try the plan we have here proposed next year, and see if it does not work admirably.

Is your cellar in a situation to preserve safe from the effects of frost, the roots and vegetables, and fruit you have deposited in it? A vast loss is every year incurred by our farmers from neglect in this respect. How many bushels of potatoes, cabbages, and turneps, and apples, are rendered worthless annually by being frozen after deposition in cellars, from a little carelessness in guarding them against frost. Where external air has free admission to the cellar, freezing can rarely be prevented, and where the cellar is at the freezing point, cold rooms above must be expected, as well as frozen potatoes below. Besides, cellars are usually damp, and a cold *damp* air in January, on most constitutions, has a pernicious influence. Look, then, to your cellars, and see they are dry and warm.

The winter months, more than any other, are the farmer's best time for storing his mind with useful knowledge; what preparation have you made to meet the wants which attention to this subject must create? We take it for granted, some valuable agricultural publication is received and read by every one who claims the title of farmer; if not, then the first thing to be done is to become a subscriber to one, or more, to be placed on your table weekly, or monthly, and read for the suggestions they may contain of importance in the cultivation of the soil. By the liberality of our legislature, a library of valuable books has been placed within the reach of almost every person in the state, and every one should avail themselves of the advantages it affords.—As yet, however, this library contains no work on farming, and we would suggest the propriety of every farmer purchasing some standard work annually for his own use, say, for the present, the work on Cattle, or those on the Horse, or the Sheep, by the Society for promoting Useful Knowledge.* Either of these volumes would be read with interest, and the purchase of one of the series annually, would, in the end, give an agricultural library of the greatest value. Winter reading is of great importance to the farmer;—what have you yet done in this respect in preparing for the long evenings that are coming?

What preparation have you made for the education of the young? More is done during the winter months

*The *Farmer's Series*, of the London Library of Useful Knowledge, when completed, will consist of some seven or eight octavo volumes. Of these volumes, one on each of the subjects of Cattle, Sheep, Horses, and two on the practice of Husbandry, have been completed. The whole series will embrace a vast fund of Agricultural Knowledge, and may safely be recommended to the notice of every farmer.

towards giving the tone to the youthful mind; of forming its taste, and determining its pursuits; of accumulating knowledge, and establishing the character of the individual for good or for evil, than in any other period. Especially is this the case among the laboring classes. Is it not then enough that the state has provided the means of education, to make them effectual, they must be improved. The intention of the laws respecting education must be carried out in the same liberal spirit in which they were conceived; competent teachers rather than cheap ones must be provided; and that interest felt in, and that supervision extended to the common school, without which they cannot flourish. Has every thing necessary on your part for the success of education in your district, been done by you?

The cold winds of the north, with their black clouds and scattering snow flakes; the departure of *our* summer song birds, and the arrival of others from the shores of Hudson's Bay, or the Arctic Ocean; the lonely flight of the wandering sea bird; the chatterings of the gregarious voyagers from the northern lakes; the yellow and crimson of the few remaining leaves on the forest trees, and which are hourly falling to mingle with their now brown and wind-rustling kindred below, all prove, that whatever preparations to meet the winter are to be made, must be made with little delay. Shall we see they are completed?

MILKING.

That a material loss is sustained by the dairyman, from the manner in which the process of milking is usually performed, can scarcely be questioned by one who has paid attention to the manner in which milk is produced, and the nature of that fluid. In milk, the most valuable part is the lightest, as we see from the cream rising to the surface of the vessel; and it is reasonable to suppose that the same relative position is maintained in the udder as in the pan or pail, that is, the cream or richest part is in the highest part of the lacteal vessels, and of course is the last to be extracted in milking. When, therefore, this operation is carelessly or imperfectly performed, or in other words, the cow is not 'milked clean,' the best part is left in the udder, and lost to the dairy. It may be said, however, that what is left at one time, is obtained at the next milking, and is not, therefore, lost; but it must be remembered, that the process of absorption is constantly going on, and that by leaving the richest part for this action of the vessels, it is irrecoverably lost; and besides, the more completely the vessels are emptied, the greater the secretion will be. All dairymen are aware of the fact, that to dry a cow, nothing more is necessary than to only partly drain her udder at each successive milking. The secretion of milk will cease, and the absorbents become active in proportion as the milk left incites them, until none will be left; and this result, in a greater or less degree, always ensues where the milk is not fully extracted. This also explains why a cow milked three times a day, will give more milk in the twenty-four hours, than when milked only twice.

In a large dairy, '*dripping*' or stripping the cows, after they have been milked in the usual manner, is practiced, and with evident profit, as the milk thus obtained is very nearly pure cream. A writer in the Farmer's Magazine thus describes the manner in which this last draining of the udder should be performed:

"The milker should be instructed to milk as fast as his strength will allow; and the idle or slow milker I would at once discard from this branch of the dairy. When he has obtained all the milk he can by the common method, he should be required to press moderately with his left hand the upper, and every part of the udder, so as to force downwards all the milk that may be remaining in the smaller or higher milk carrying tubes; and as it is pressed into the receptacle and teat, he should milk it out with his right hand, until the whole is completely discharged. The same plan must be pursued with the remaining quarters of the udder. It must not be supposed that this method will be distressing to the animal; on the contrary, her quietness during the process, is a satisfactory indication that it occasions no pain, but rather an agreeable sensation. This plan, though effectual in keeping up the cow to her full quantity of milk, will not, generally speaking, take more additional time than a minute over the old mode of milking, and by persevering in this plan, all the milk will be obtained, the richest, as well as the thinnest of course."

It is by attention to minute things that most of the profits of the farmer are realized, and we are confident that by attention to this point, non-essential as it may at first appear, the dairyman would find an important addition would be made to the sum total of his annual profits.

From the Franklin Farmer.

Breeding Swine.

We feel very much indebted to the writer for the following excellent communication on a subject of the greatest importance. The rearing of swine is a department of rural economy in which there is room for the greatest improvement and we think our Kentucky breeders will find much useful information and many valuable hints in the communication below.

BUFFALO, N. Y. August 31st, 1839.

To the Editor of the Franklin Farmer:—

Sir:—Agreeable to the intimations in my last, I now come to the rules adopted by the most successful breeders of Berkshires in this vicinity, your readers will excuse my particularity in stating them, for the reasons that the article of pork, as before asserted, is the most important item of western agricultural production, and that I am writing to those who are not *above* their business, but who take the same pride and pleasure in raising a fine race of hogs, as they would in that of Blooded horses or Durham cattle.

A boar should never be permitted to be used till seven months old at least, and it would be much better that he were allowed to run till nine months. But if commencing at seven months, he should cover sparingly, say not more than fifteen or twenty sows till a year old, and these as distant apart as possible—one or two only in a single week. From this time till he has attained pretty full vigor, which I should place at about eighteen months age, he may be used a little more freely. His spring seasons might then vary from twenty-five to thirty sows, and his fall nearly double this number. In the meanwhile should be kept with care. A strong door may open from his pen into another, to which the sow is introduced, the boar is then let in and allowed one coitus only, immediately after which he must be turned back, and the sow taken away. It has generally been noted that one covering produces a greater number and stronger offspring than two or three, and that an *ad libitum* service, is alike pernicious to all parties.

The best food for the boar during the season, is boiled or soaked corn, with plenty of pure fresh water, and for a variety some swill from the house with meal in it (oat is the best) and a raw or boiled vegetable root or two, and as an antidote of disease, and to give tone to the appetite, and assist digestion, a table spoonful or so of sulphur is occasionally put in his food. Salt is also placed where he can get at it when he pleases, and charcoal or small chunks of rotten wood, together with a handful of crushed bones, if convenient, is thrown. He must be kept up alone in his stye under close cover with a plank floor and plenty of dry litter, the sleeping apartment commnnicating with a good yard to exercise and root and wallow in, and a strong post placed upright near the centre for him to rub against.

During the interim between the spring and fall seasons, it would be greatly conducive to the health, vigor and longevity of the boar, if he could have a run in a cool grass pasture, with clear sweet water passing through out, and take lighter food than when in service, but yet sufficiently nutritious to keep him in fair store order. A good animal thus treated, may last ten to twelve years and get excellent stock first to last. But great care must be taken that he be not *overworked;* this is deemed very essential. It is the great fault, of us Americans, that when we have obtained a male that has any way distinguished itself, instead of husbanding its resources, we use it too much, and this is one great reason why the stock of such animals so often disappoints the public. I understand that particular English breeders, limit their best horses and bulls to about thirty females, and often as low as twenty or five and twenty. What their usage is for boars I do not know, but I suspect that it would be less than here allowed. It will be admitted however, that individual males, may serve well a greater number than limited above, but my principle is, not to work them up to their full capacity, if error must be committed, it is better that it be on the safe side.

Unless a sow were very coarse, and the object was to fine her, I would not allow her to breed till eighteen months old, and if something extra was desired, she ought not to come in under two years, there is then no check in growth, and the first litter is usually as good as any subsequent one. She ought to be taken up and occupy a place alone, either in a pasture or a pen similar to that described for the boar, one month previous to farrowing, her condition kept good, and strictly watched when expected to bring forth. As soon as dropped, see that the pigs are cleaned and take the teat, and the dam rid of the placenta and that carried off and buried. The watching should continue a day or two longer, till the pigs get a little strong and lively, as the sows of this breed are so heavy as to endanger their being lain or trod upon and killed. One pig more saved than leaving the sow to herself, amply repays all this extra attention. Although objections are made to giving food immediately after farrowing, I can see no reason in them, the poor animal is faint and dry, and requires nourishment, and my rule is to feed them swill *in* a moderate quantity a little more than blood warm as *soon* as it will get up and eat it. This is gradually thickened the next day, and by the time the pigs are a week old, the dam is allowed to eat all it will without cloying. A mixture of oat and pea or Indian meal, of one part of either the latter to three parts of the former, is highly recommended for nursing, together with an equal quantity of steamed vegetables. As soon as the pigs will eat, a small open door should be placed in the pen under which they could run and be separate from the sows, a trough set in, and milk, with a light mixture of oat meal poured out for them. This greatly relieves the sow, and adds much to the growth of the pigs, they wean then, without scouring, losing condition in the least, or being checked in their growth. It is generally thought that pigs do as well to be weaned at six weeks old, as later, as the little milk each then gets, is obtained by more or less quarreling, and adds a distaste to their other food, besides it is a great consideration to get them off the sow as soon as possible. Eight or ten great pigs tugging at her breast for two or three months is hard to be borne, and frequently very pernicious to her teats. In weaning, all but one should be taken off, put the dam on short allowance, and in two days take the remaining pig away, allowing it at first, to draw the breast twice a day, and then diminish till once in two or three days during a week, then turn the sow out to grass and leave off entirely, and commence gradually putting her into condition again. The Berkshires are great milkers, and must be well attended to at weaning time, or their breasts will fill, become caked and swollen, and finally ulcerate and be the cause sometimes of the death of the sow.

Two litters are allowed per annum, and a preference for farrowing in this climate, is given to the *months* of April and September. Farther south later and earlier will answer. A pig when first dropped is a very tender animal, and if the weather be too cold it will perish, the dam also is likely to become ravenous and devour her offspring, or refuse to nurse it. Sows are better to be always separate, but with the owner of a large herd, this is inconvenient, and adds greatly to the expense of keeping them. One must do as well as he can in this particular, but when nearly of a size and tolerably peaceable, four may be kept together in a pen, and a dozen or so in a pasture. The breed greatly decides on this point. For instance, I could keep a hundred Chinese together without quarreling or accidents, they are so good natured and quiet, but then again, they huddle too close, and so want as much separating as others. These being smaller and of quicker maturity than the Berkshires, the sows may come in at a year old, and when full grown, great care must be taken about overfeeding and keeping them too confined. The bellies of this stock are now nearly dragging on the ground, though they have had no other food since the forepart of May, than what they have found in a poor grass pasture. Those I have sold west, get so fat on shack by November as to be hardly able to waddle, and make the nicest of pork without further feeding. In England they are called par excellence, the "gentleman's hog," and though their pork inclines rather too much to fat, still it is so sweet and delicate, that it is more generally preferred by those who can afford it. The crosses of these with the Berkshires are in great repute at the Smithfield market, and I will add that what little has been thus made here, takes the preference. The hams well boiled, and eaten cold, seem absolutely to dissolve in the mouth without mastication. The average weight of my Improved Chinese, may be at eighteen months old, from two hundred to two hundred and fifty pounds. Occasionally they will go older to three hundred and even four hundred pounds, but this is very rare. Though small, they have proved to the other races of hogs, what the Arabians have to horses, the foundation of all improvement.

The reader will have surmised from my observations on breeding, at least some of the causes why the Berkshires with you have not come up to the full sizes so often stated by the eastern breeder, that they arrive at, but lest he may not yet thoroughly understand the demerits of the case, in justice to both seller and purchaser, I shall proceed to briefly state them. Suppose then

that we start with a pair of Berkshires frrm unexceptionable stock, the produce may deteriorate in sixe either from too greai affinity in blood of the parents, breeding too young, too old, or too much. Keeping too fat, (which by the way is not often the case) too poor, or too confined—from diseases known and unknown, from runts that will occasionally be dropped, from scantiness and impropriety of food to the pig, and occasionally, over which no one has control, and that check its growth from sufferings through the inattention of the transporters to its place of destination, and finally from a general deterioration in nature. Really good animals that are every way right, are rare, very rare indeed, and when at last obtained, cannot be too highly cherished. That there may be an increased effort to produce them throughout the United States, is the ardent desire of

Your obedient servant, A. B. ALLEN.

Traveling Capacity of Berkshire Hogs.—Hardiness of Durham Cattle—their treatment—Pedigrees should be published.

We received the following in the same package which brought the foregoing. In reference to the hardiness of Durham Cattle, since the publication of our article alluded to below, a number of breeders have furnished us with facts going to prove that this breed is equal to the native cattle in vigor and hardiness of constitution.—We should be glad to have their experience on the subject written out for publication; and it would be well if some breeder would treat the subject with reference to the physiology as well as the habits of the animals. In point of animal conformation, we never have entertained a doubt that the Durhams would be better able to endure hardships than the scrubs; and our opinions as to the superior hardiness of the latter are founded on the fear that the tenderness with which the former are usually (and very properly) treated, might tend to establish a habit in them, unfavorable to their hardiness. Let us hear from old breeders on this subject. We shall be able, we think, to settle the question for ourselves the ensuing winter.

I was just folding up the inclosed missile to send you, when the Franklin Farmer of the 17th inst. was brought down home from the Post Office. I notice your just and candid remarks on hogs and cattle. You mention *deep, muddy* roads, but will gather from the contents of my last letter that I had dry ones only in prospect for the Berkshires. I was not aware that you drove in mud. The greater weight of the Berkshires in soft roads would tell against them, still I do not think the Longshanks would have much the advantage over those only a year old or so, above this age I think they would decidedly, though here with yourself, I would prefer to have a trial instead of an *opinion*—coarse bones, however, do not constitute superior strength or c durance. The same diameter of bone of a race horse, as it is more compact, finer grained, and less porous than that of the cart horse, must consequently be stronger, for instance, something like ivory compared with bone. It is said that the Berkshires possess this superiority. But there must be something aside from bone to constitute strength and endurance—such as ligament, muscle, &c.

I most heartily wish that your proposition of giving premiums could be acted on at fairs. This ought to be the animal's test, the best and most meat, or the quickest and most work at the least cost—then show should never enter into consideration, only as a desirable appendage, but I fear we all have too much of it in influencing our judgments.

As to the hardiness of Durham cattle, I will relate what I know. You can easily surmise the rigor of our climate here in the latitude of 43 degrees—but my brother's cows wintered well on Grand Island the first year he had them, on hay alone, and without shelter, other than an open shed, for he had just begun his farming and had no barn. The bull, Leonidas, belonging to my father, the two winters he was three and four years old, stood at a stack of marsh hay, and no other food except what he had out of the horse dung heap—his shelter was the lee side of the stack, he never entered a stable or slept under cover to my knowledge during this time, and never seemed to care for sleet or snow. He had a bed high and dry of the same kind of hay that he ate. He did not grow much during these winters, but came out each time in good condition. The hardiest native animals that we have, on the same fare, would not have looked as well. I consider this bull an extraordinary hardy and thrifty animal. It is not the way, however, that Durhams ought to be kept, nor do I think many would bear it; but knowing how good the progenitors of Leonidas were, and as it was never intended to sell him, and size and show, therefore, were not particularly cared for in him, the experiment of thus wintering was begun and watched as it continued, to see that he did not suffer, for the purpose of satisfying ourselves that short horns may be bred hardily. This past winter, when he had attained five years age, we were engaged in drawing out very heavy white oak timber for ship plank, and had twelve of the most powerful yoke of cattle that we could find for this business. Leonidas was put into the team, his step was as quick as the freest, and some of the oxen girthed over seven feet, not one was a match for him at a pull. His girth is about 6½ feet. He is of moderate height and very compact, and when turned out at his ease taking on flesh like a China pig. I will add, that he did the same duty and on the same fare as the other cattle, and came out in the best condition.

Mr. Rotch, of Otsego county, where the thermometer not unfrequently falls to 30 deg. below zero, tells me that his short horns will bear *any intensity of frost.*—As the winter season approaches, a short thick under coat of hair resembling fur comes out on them, which is shed as warm weather sets in, he thinks, however, that his stock does not stand the heat quite as well as the native breeds. Still there is no doubt in my mind that these same animals taken to Kentucky would do well, with the advantage of shade trees to shelter them from the rays of the sun during the hottest part of the summer days. It is well known that animals will accommodate themselves to climate. I have a short haired New Foundland dog, and as active an animal in summer as any I know, he sheds and grows his under coat of hairy fur as the seasons warm and cool.

The editorial remarks on the feed and treatment of Durham cattle that appeared in No. 39, vol. 2, p. 309, of the Franklin Farmer, as a general rule are admirably just, so far as my experience goes. Does any one suppose for a minute, that a superb short horn can attain its present size and condition, turned out to the blasts of a rude Canadian winter, with a half ton of hay and what browse it can pick up for its only sustenance during seven months, or that they can support themselves on arid lands that would starve an ass, or among rocks so thick that a peaked nose sheep can hardly get his teeth to the grass? What the breeders of imported animals contend for is, not that they will support life and keep fat on a less amount of food than another, (China hogs excepted,) but that they will give a greater combination of meat and milk, and these of a better quality, and arrive sooner at maturity. It is thus for the interest of the breeder to feed generously, and if he is not prepared with rich pastures and cool groves in summer, and comfortable stables in winter, with plenty of good hay and some meal or roots, he had better let Durhams alone, or indeed any large improved animals. For one, I have no idea of blinking the stock question, and to conclude, I will say, dont pamper and stuff, but feed well and regularly, and make your animals comfortable in all weathers, as you would like to be yourself, or high prices, with the expectation to grow and sell high again, will have been paid in vain.

Your remarks have unexpectedly led me into so many observations upon stock, that I shall now await some abler pen before touching paper again on this subject, for I fear I may already have exhausted the patience of your readers. Be so good as to make our compliments to western importers, and say that we should be greatly obliged when subsequent herds are brought this way, that they would send the names and pedigrees of the animals with them. From the first importation of the Ohio Company, to this last by your neighbors, that passed here a week ago, we have scarce got a name or pedigree with this stock. This would have been a great satisfaction to many here, for then, in hearing of their sales, produce and doings hereafter, we should know what it was. We presume that no one engaged in these importations thought of this, or we should have been obligingly favored by a full sight of all these matters. If the young bull of this lot has not *size* enough to suit Kentucky, I shall pray for the resurrection of a Mastodon from the Big Bone Lick in shape of a Short Horn for you.

A. B. ALLEN.

Deep Planting.

A patron of ours informed us a few weeks, that while taking his fodder, he discovered a great difference in appearance between two pieces of corn, which were planted at the same time, and in the same kind of soil. The fodder on one piece of ground dried up so fast that he could scarcely get through with stripping it before it was entirely burnt up, to use the common phrase. On going to the other piece, he found it green to the ground, and in good plight for stripping. He was struck with the difference in the two lots of corn, and on reflection recollected that on getting ready to plant his corn in the spring, he ran a furrow with a large shovel or bar-share plough, after which he followed with a small plough called a bull tongue, running it pretty deep in the same furrow, till he got perhaps half over the piece, when he concluded to plant the balance in the single furrow, and discontinued the use of the bull tongue. The result was, that the part planted deep in the opening made by the small plough, where the larger one had previously been run, produced a third more fodder, and of a better quality than that planted in the shallow mark made by the large plough alone; besides the great difference there must be in the weight of the corn, the latter drying up too fast of course to make a proper article for bread. This should be remembered by farmers, and the evil of shallow planting avoided, especially since all seem to think the seasons are becoming shorter, and much drier than formerly.—*Southern Cultivator.*

From the Yankee Farmer.

Time of Transplanting.

There different opinions among cultivators, as to the best time of transplanting trees, shrubs, &c. Perhaps this like many other farming operations, such as applying lime, pruning, and some others, may be done at different periods without any material difference as to the advantage. Early in the spring, as soon as the frost is out of the ground, is a good time for transplanting, and some contend that it is the best time in the whole year; others prefer the fall. This limiting the farmer to a particular time in the year, and that of short duration, for performing any kind of business which may be done at other periods, is attended with great disadvantages, especially when that "nick of time" comes in a season when he has much to do and is likely to neglect something. There is nothing that a man is more likely to neglect when pressed with more business than he can conveniently attend to, than the setting out of fruit trees; he does not look for a crop from them the present season, so he prefers attending to those things that will yield him a profit. Besides this regard to immediate profit, his trees may not be before him, asking, as it were, his friendly care and culture, and being out of sight they are too much out of mind, and so are neglected.

Though there are exact periods which we should prefer for transplanting, and it is important that these should be known and preferred by cultivators, so far as convenient, yet it is equally important that they should know that other periods in the year will answer for transplanting, and that the business should be attended to in seasons not the most favorable rather than neglect it.

We think that there is no better time for setting trees than early in the fall, after the process of vegetation has ceased; the tree can then be removed without affecting it, and the earth will get well settled round the roots, so that it will grow nearly as well the next season if it be well set out, as though it had not been transplanted.

We have set trees in the fall from the 20th of Sept. to the last of November, and some in December. Those set the earliest did the best; they all lived and grew well the next season. Most all of those set late, lived, and some of them grew tolerably well the next season. We have set trees in November, when the ground was frozen hard, and at other times when the snow was 6 or 8 inches deep; they generally did very well; and though it is much better to transplant early, yet better late than never.

There are four months in the year in which trees, shrubs, grape vines, &c. may be transplanted, and they will generally succeed if the business be well done, viz: October, November, April and May; but it is much the best to attend to it early in the fall or spring. We believe that most persons who think the spring a better time for transplanting than the fall, come to that conclusion from their transplanting too late in the fall.

If trees are not transplanted early in spring, it is necessary that they should be taken up early, and kept in a cool place, with their roots moderately moist. This will check vegetation, and the removal will affect them much less than to let them remain till the buds or leaves have started.

From the Practical Farmer.

Woodland.

Few persons have any adequate idea of the importance of a woodland to a country. Wood is not only useful for fuel, timber, tools, &c., but without it the continent of America would be as barren as the desert of Africa. Trees protect cattle and other useful animals from the burning rays of the sun, prevent or moderate the effects of heat and drouth on the soil, produce moisture and vital air by transpiration of the leaves, regulate and soften the temperature of the climate, and are indispensable not only to the comfort and civilization, but to the existence of human beings. A world without a sun, or an earth without an atmosphere, would scarcely be more intolerable or uninhabitable, than a country without trees.

A farmer might almost as well be without a wife, as without a wood lot. It well observed in Deane's New England Farmer, that "in clearing farms in a new country, due regard should be had to preserving a perpetual forest. Some have mistaken their interest so much, as not to leave a sufficient quantity of land uncleared; so that they are put to the disagreeable necessity, either of buying their wood, or else of going, per-

haps, some miles after it. That part of a farm should be set apart for this purpose, which is least adapted by nature for tillage or grass. Land which is swampy with a very thin soil over a sandy bottom: land that is rocky and mountainous, or which will but poorly bear a dry season, or even the most sandy or gravelly heights, or steep declivities which cannot be ploughed, may answer well for a forest. Forest trees having long roots, some of which penetrate deeply, may find sufficient nourishment, in places where corn and grass cannot be cultivated to advantage. So that it is very bad economy, to suffer any such place to be destitute of growing trees. For if they do not produce wood, they are in a manner useless. Or if they produce grass, trees will not hurt them for pasturage, but in some cases make it better.

"The quantity of ground that should be set apart for this use, must vary according to the largeness of the farm it belongs to, and according to the demand of wood, the quality of the soil, and the nature of the climate. If the climate be hot, the forest may be smaller. Some intelligent farmers in this country, have thought they could make a lot of ten or a dozen acres answer the purpose of supporting one constant kitchen fire. But it will not, unless the soil be uncommonly fruitful, and the trees be such as are of the quickest growth. If land be poor and dry, it will require twenty acres or more, to supply one single fire, and keep the stock of trees undiminished." It is, however, a very easy matter, by the use of stoves for cooking, and warming rooms, to effect these objects with one-third of the fuel generally used when Dr. Deane wrote.

In some cases, it may be found more profitable to keep tolerable good land in wood, than in any other cultivation. This will depend on the vicinity to a market town, or some place where wood can be sold at a good price.

To thicken a forest, or to prevent its becoming too thin, cattle should be kept out of it at all seasons. The seeds or cuttings of trees of rapid growth, should also be set and planted in every part which has become destitute of growing wood. If woodland be allowed to get so thin that the sun can get in and cause the ground to be covered with a sward of grass, this will prevent the further growth of young timber; and in this way the ground becomes eventually stripped of all its growth.

Loudon's Gardner's Magazine remarks in substance, that the shoots from the stools or stumps of forest trees may either become crooked branches of very little use except for fuel, or beautiful and straight timber trees, according as the old trees may be cut over close by the surface, or one foot above it. The closer the stump is cut to the ground, the straighter the suckers or sprouts. This important fact ought to be familiar to every owner of a wood lot, and constantly kept in mind by the gardener in pruning fruit trees.

In applying the axe to a wood lot, which the owner would wish to perpetuate by a series of reproductions, the best method is to cut down every tree as far as you proceed. This will give the sprouts from the stumps, and other young trees, the advantages of a free circulation of the air, and a fair exposure to the sun. But if some of the large trees are left, the shoots which spring up from the stumps of the others will languish beneath their shade.

From the Practical Farmer.

Dwarf Fruit Trees.

In some places, especially in France, a method prevails of cultivating dwarf fruit trees These are said by English and French writers, to have many advantages. The trees are not as much exposed to high winds, they produce better fruit, bear earlier, and more abundantly.

Dwarf trees are produced by inoculating on stocks of comparatively slow growth. Thus by inoculating the apple on the Paradise or *Douciu* stock, the peach on a slow growing plum stock, and the pear on the quince stock, &c. This is practised here, more particularly, in gardens where the trees are set alone, the borders alternating with gooseberries or currant bushes.

The pruning and management of dwarf apples and pear trees, are well described in the following remarks.

The first subject of the following remarks, from their appearance, were planted six or seven years previously to the commencement of any pruning being given them. In consequence they require to be very much thinned out, so as to get the branches clear of each other. For thinning I always bore in mind to cut the old wood off close to the stem or branch it was attached to; this prevented young wood springing afterwards. When the trees were thinned of the old shoots, as above started, the young side shoots were what is generally termed spurred in; that is, they were so shortened, that only two or three buds were left on them, and the leading top shoots were shortened to half their length.

The following and every succeeding year, the trees were treated in the same manner, as respects the young wood, till they had acquired the desired height, when the leading shoots were shortened, as the side shoots or spurs had been previously. When the leading shoots show an indication to grow very luxuriantly, which is apt to be the case under this treatment, they should be prevented doing so, by cutting off part of the old wood, along with the young shoots immediately above a flower bud. This will prevent the shoot so cut from increasing in length. The spurs must be treated in a similar manner, by cutting off a small portion of the old wood along with the young, when they are getting too long.

I have never found the above treatment prevent the fruit swelling, or in any way detrimental to it; but on the contrary, it was always improved.

Young trees are to be treated in the following manner; if there are more than three shoots on the plant, reduce them to the number, and shorten each to three, four, and six eyes, according to their strength. The following season reduce the number of leading shoots to six, and shorten them to three-fourths of their length, and spur in the remaining shoots. The tree should be managed in every respect in this manner until it has retained the required size, which of course depends on the convenience or fancy of the owner, or conductor of the garden.

I make a point of letting the trees take their natural form of growth as far as the system described will permit; for I consider it of little consequence what shape is given to the tree, provided my end is attained; that is, to make every branch as it were a long spur, with bearing buds from the base to extremity.

Two or three years' trial of this method only, might possibly deter many from a continuance of it, in consequence of the quantity of young wood which will be produced yearly at first, and from the apparent difficulty of getting rid of the superfluity. But that inconvenience will be ultimately surmounted if the foregoing instructions are attended to, and the continuance will be the possession of both healthy and fruitful trees. To attempt to bring very old trees into this method of management would be attended with difficulty, unless they were cut down short and allowed to make new heads, which I should recommend where their produce can be spared for a time. In a few years fine healthy heads would be formed, which will yield fruit superior to any that could be expected from them if left in their rude state. But if the trees cannot be spared to be headed down, they may be very much improved by thinning out the spray, and cutting out a few old branches, which will cause them to throw out young shoots, and these in a short time, will become bearing wood. The remainder of the old branches may then be thinned out with effect. Even if this process is only performed once in two or three years, and the stems and branches well cleared of moss and dead bark, it will be of great service to the trees, and be a means of keeping them free from insects, and giving them a neat and clean appearance.

Pitts' Separator.

It gives us pleasure to find that Pitts' Separator and Grain Cleanser is coming into extensive use, and that it gives great satisfaction to all who use it. We refer our readers to the following communication of Mr. Jones, which we take from the American Farmer.—*Maine Farmer.*

Pitts' Machine for Thrashing and Cleansing Wheat.

Annapolis, August 8th, 1839.

DEAR SIR—I have now given you the days' work as performed by Pitts' Machine for thrashing and cleansing grain, on the 27th ult. as certified by Messrs. Wilson, (the three sons of Dr. Thomas Wilson, of Easton Neck, Kent Co., Md.,) Edward Paca, Esq, my son, Richard I. C. Jones, and myself. The machine got out in 15 minutes ten bushels white wheat as clean as it could be done by passing it through the fan three times, if got out in the common way—Since that period I got out in 4 3.4 days, 1082 bushels wheat, and 336 bushels oats—1st day, 294 bushels; 2d day, 249; 3 206; 4th, 252; 5th, 173 bushels red wheat, weighing 66 lbs. per bushel by the steelyard, which will be an average of about 240 bushels per day, which divided into ten hours work per day, will give 25 bushels per hour. The large band from the horse power was old and rotten, and frequently broke, by which much time was lost—25 bushels per hour is a moderate calculation.

The wheat got out by this machine commanded 3 cents per bushel more than any other in the market; 115 cents was the highest price given for wheat on that day, which was heavier, but not clear of dust. Will not this circumstance add greatly to the value of this machine? There is an ingenious contrivance to throw the band pully out of gear, so that when you want to stop the horse power suddenly, (if a horse should fall,) the cylinder ceases to revolve, and leaves the horse power to be checked at once.—A valuable horse's life was saved by this improvement—he was thrown down by the shaft, and his neck doubled under him while going around, which threw him back upon the shaft, and tripped him up.

The difference in the price at market, and the great saving of grain and labor in 2000 bushels, will pay for the machine—it does not leave a grain in the straw, and the wheat never touches the ground, but is bagged and put on board a vessel, or in your granary, at one operation; it is pronounced in Baltimore to be more free from dust and dirt than any other wheat in the market. Never were measurers better pleased with handling a crop, there being no sneezing or coughing from the dust—in fact, they could not but believe that it had been repeatedly and particularly well fanned.

I have already had application to thrash for farmers who had engaged other machines but are now determined not to make use of them if they can be accommodated with Pitts' machine. The part that separates the grain cannot be attached to any other machine—the fan can be taken off if thought desirable, but the machine makers here consider this as superior to any other ever produced, and think there is no room for improvement, except one which I have suggested, and which will be attached to any that are built hereafter, and will save the labor of one hand—that is, instead of the wheat falling into the boxes under the fan, I intend to fix a shoot that an angle of 40 degrees will run the wheat from the fan into a large trough, alongside the machine, and thence be measured up and put into the bags at once—this can be done by raising the fan one foot higher; and the other improvement is, to have a fall leaf at the back of the fan to keep the wind from blowing the chaff and straw back, and thereby choke the riddle. I substituted an old door when occasion required it—this leaf hooks on and off at pleasure. The machine is simple enough in its construction, as you will perceive when you see it in operation.

Yours, respectfully,
RICHARD I. JONES.

MILE.

The following exhibit of the number of yards contained in a mile in different countries, will often prove a matter of useful reference to the readers of the Cultivator.

Mile in	England or America,	1760 yds.
"	Russia,	1100 "
"	Italy,	1467 "
"	Scotland and Ireland,	2200 "
"	Poland,	4400 "
"	Spain,	5028 "
"	Germany,	5866 "
"	Sweden and Denmark,	7233 "
"	Hungary	
League in	England or America,	5820 "

—*Cultivator.*

Harvesting Ruta Baga.

The best mode we have tried is to cut off all the leaves close while the plant is standing. This should not be done a long time before we mean to dig up the plants, but it is very convenient to begin in the latter part of October to pluck the leaves for cattle.

In the latitude of Boston it will not be prudent to let any turnep stand out longer than the middle of November. When we have attended to this rule, we have never lost any.

We take a sharp knife in the right hand and the leaves in the left; cut them off within half an inch of the root and throw them in rows of heaps. Then with a horse wagon or cart, carry a load to the field where the cattle are, and scatter them on the grass.

In gathering the roots we use a dung-fork and throw them into heaps. When the cart comes we take a turnep in each hand and rap them together to get off the dirt, and we soon fill the cart when the turneps are good.

A neighbor tells us that those plants which are to be kept for seed should not have their tops taken off until they are pulled; for a hard frost on the root after the top is cut will prevent its going to seed the next season. —*Boston Cultivator.*

Peach Stones,

Should not be suffered to become dry and hard, if we mean to plant them. They may as well be placed in the earth at once, where we intend they shall remain. If that is not convenient they may be buried in a box of earth.

If they become dry before planting, they will sometimes lie in the ground a whole year before sprouting. Stones from budded fruit will vegetate, but we are never certain of obtaining from them the same kind of fruit. But stones from native seedlings will produce trees bearing fruit like the parent tree provided the parent has stood so far from other trees that the pollen from them has not fallen on its fruit.

If we would be at the trouble to procure peach trees from orchards that have never been budded, and that

stand far from such as have been, we might raise the same kinds without the trouble and the delay of budding, and without being exposed so much to the depredations of worms at the roots.

These trees are short-lived, and the only way to insure a supply is to plant anew at short intervals. We intend to give some particular directions, at the proper time, for preventing the unwelcome annual visits of the white coated worms that are so prejudicial to the roots of this excellent tree.—*Boston Cultiaator.*

From the Farmer's Cabinet.

Dialogue between a Father and Son.

ON THE VALUE OF LIME—ON BURNING LIME.

FRANK.—I observe, Father, that in all your compost heaps, you use large quantities of lime.

FATHER.—Yes, I consider that mode of expending it, the best and most economical that can be adopted, as it is enabled to act in its four fold capacity to the greatest advantage. 1st, as a corrector of acidity; 2nd, as a stimulant; 3d, as a *sweetener*—according to the beautiful simile of the Preacher, who observed, "Lime to a stubborn, sour soil, is like the grace of God to a wicked man's heart;" and 4th, as a destroyer of all weeds, with their seeds, and all noxious insects, with their eggs and progeny.

1st. Our compost heaps consist chiefly of the openings of ditches, the scrapings of roads, and large clods cut from the sides of the high ways, and from the margins of rivers and woods, all which, if applied immediately as a dressing to the soil, would be injurious rather than otherwise, in consequence of the acidity which they contain: lime is a corrector of that evil.

2nd. And the heat which is engendered at the time of its slaking, adds exceedingly to its power in this respect, expanding and dividing the hardest clods in a surprising manner, and breaking up and pulverising the most compact masses in an incredibly short space of time; they in their turn imbibing and preventing the vapor, which arises during the process, from flying off and being dissipated.

3d. And here the effect is truly astonishing, rendering that which was before stubborn, inert and unyielding, mild and generous; what was before injurious to vegetation, fit for the support of the most delicate herbs and flowers, and rendering the soil with which it is mixed light and friable, warmer in winter and cooler in summer.

FRANK.—Warmer in winter and cooler in summer?

FATHER.—Yes—the soil made lighter and consequently more porous by the action of the lime, permits the superabundance of moisture in the winter to pass off; while its absorbent qualities retain the moisture in hot weather; and the whiteness of color which it communicates to the soil, mitigates the power of the sun's rays—put your hand on this dark-colored door, now the sun is shining on it—

FRANK.—Why it is burning hot!

FATHER.—Now place it on the door frame, which is painted white.

FRANK.—I declare it is quite cool!

FATHER.—The dark color absorbs the rays of the sun; the white color throws them off. It is a pretty, but common experiment, to place two pieces of cloth, one black and the other white, on the snow when the sun shines—the black cloth soon sinks into the snow, which is melted by the rays of the sun passing through it; the snow under the white cloth is not effected in the least.

FRANK.—Then now I understand why you keep the outside of the dairy, even the shingles on the roof, so nicely white-washed—it is to throw off the rays of the sun, by which the house is kept so cool, even in the hottest weather, as to draw the notice of every one who enters it.

FATHER.—Just so—in short, lime acting like leaven, purifies the whole lump. And

4th. The violent degree of heat evolved during the operation of slaking, is destructive to the weeds and their seeds, of which these sods are full, the deposites and seedings of many years; as also to worms, slugs, bugs, and other vermin and insects, *roasting their eggs* and turning them into valuable manure. But you must have observed, and I have been expecting that you would notice the circumstance, that I do not mix the manure with the lime and sods on the first formation of the heaps, but delay doing so until the time of turning them.

FRANK.—I have observed that, and ought to have noticed it, but my head was so full of the idea of cooking the vermin and roasting their eggs, with the probability of furnishing a dish of stewed onions for the treat, that I let slip the proper opportunity, but I should have remembered it presently I know. But do tell me why you delay mixing the dung with the lime and soda until the time of turning the heaps.

FATHER.—There are two reasons which weigh with me, and which I will mention. 1st. I conceive that the dung would be injured by the heat of the lime, and a great portion of the most valuable part of it would be driven off and dissipated by its violent action while in the process of slaking. 2nd. Because I think it very probable that, should the dung come in contact with the lime while in such large and unmixed masses, it might operate as an antisceptic (you know the meaning of that term) or a preventive of decomposition, rather than as a sceptic, or agent of dissolution—just as we see that a small quantity of salt will bring on or hasten fermentation, while a large quantity will prevent it altogether. Our object is, you know, to dissolve or decompose the mass; so when the violent heat and action of the lime has subsided, and the clods are well broken up and mixed, I then add the dung, which soon becomes so decomposed as to form with it a pulverized compost, peculiarly fitted for a top dressing to the young clovers, stimulating their growth, and bringing the crop to the scythe so early as to leave sufficient time to bring a second crop of hay, or a crop of seed to full maturity, wheat always following.

FRANK.—But it would be inconvenient for you to use so much lime, if you did not burn it for yourself. I have thought that if you would describe your very convenient lime-burning establishment, and publish the account in the Farmer's Cabinet, it might prove of great service to many who are so situated as to be able to take advantage of your experience.

FATHER.—This is very probable; suppose then, we describe our lime-kiln, and the situation in which it is placed, as also the mode of working it; as you say, some persons may be benefitted by it, and that should be an inducement with us, to communicate what we know. Our kiln, then, is situated at the entrance of the wood, and adjoining the public road, from whence a way leads to the top of the kiln, on a gradual ascent. It is placed in a bank, excavated to receive it; this facilitates the ascent, and by this road the lime-stones and fuel are conducted to the top, without much labor. It is built of the common stones of the country, the largest being selected and roughly dressed or squared for the purpose, the walls being two feet thick. It is egg-shaped, and the dimensions are—shall we make a drawing of it?

FRANK.—O yes, pray do.

FAHTER.—Well, then, there it is.—Fig. 42. Ten feet

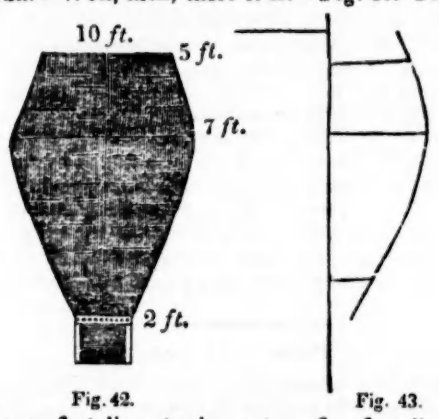

Fig. 42. Fig. 43.

deep; seven feet diameter in centre; five feet diameter at top; two feet diameter at bottom. A smaller kiln might be built, but the *proportions* should be the same. Fig. 43, is a fly or cone, to be placed in the centre before commencing the erection; the lower end going into a hole bored in a block of wood fixed in the ground, the upper end turning in a hole bored in a cross beam, so that it is thus kept perpendicular, turning easily as the building of the kiln advances; thus the wall is formed internally of a regular sweep, without difficulty or trouble. The drawing hole is two feet square, and the black dots denote the holes through which iron bars are to be thrust at the time the kiln is charged, to prevent the fuel and lime-stones from dropping down, before the latter are properly calcined; these are removed as soon as the lime is sufficiently burnt at the bottom of the kiln, and it is afterwards permitted to fall, as portions are removed, the drawing being perpetual. In charging the kiln, the drawing-hole is filled with brush-wood: then the bars are placed, and upon them are piled billets of wood cross-wise, and upon that, coal, if that is used; then lime-stones, about the size of one's fist, then more coal, and then the fire is lighted, and as soon as it penetrates the mass, coal and lime-stones are thrown in alternately, until the kiln is full; before which, however, a portion of lime can be drawn periodically, as it becomes thoroughly calcined. If it be found that the fire draws more on one side of the kiln than at the other, place sharpened stakes of wood in those places where you wish the fire to rise; they will soon ignite, and the fire will then follow them to the surface.*

*This kind of kiln is called a *running* kiln, for as often as a portion of the calcined stone, or lime, is drawn from the bottom, alternate layers of coal and lime-stones are added at the top, so that the drawing is perpetual. If the kiln works well, one bushel of coal will burn about four bushels of lime-stones. In stormy weather it will be necessary to erect a temporary shelter to windward on the top of the kiln, else the wind will press on the surface of the kiln, and prevent the air from entering at the bottom, and thus retard the work.

The advantage of burning one's own lime is great, as you know I have burnt hundreds of bushels with the clearings of my wood-land; and peat, and bushes, and chips might be used, the ashes intermingling with the lime, and adding much to its value. If it be thought that the erection of a kiln is too expensive for an individual, a partnership might be formed among neighbors; but it would be a difficult thing to decide who first shall have the privilege of burning, as all would often require the lime at the same time: I therefore determined to incur the whole expense, and make the best of it.

FRANK.—And there is our advantage, or pleasure, which you have not mentioned.

FATHER.—What is that?

FRANK.—In being able to lend your kiln to your neighbors, when not using it yourself.

FATHER.—That's good—it is fulfilling scripture, you know, "It is more blessed to give than to receive."

FRANK.—And that reminds me of the singular circumstance which took place when Farmer Garnett came to offer to hire the kiln of you, after he had treated you in the dishonest way he did, and after trying to injure you by breaking down your fences. You remember he refused to have the use of the kiln unless you would take money for it, and that you refused him the kiln unless he would have it without pay, and what a struggle for the mastery there was! At last he became melted by your kindness, and with tears, confessed that he had wronged you—now was not this, dear Father, "heaping coals of fire on his head," according to the true meaning of scripture? melting him by kindness.

FATHER.—You have delighted me, Frank! And you know how often our neighbors have offered to rent it, after I have refused to take money, "splitting the difference," as they term it, by proposing to keep it in repair for me; but I know the value of a good action too well to part with it for so paltry a consideration as a few dollars a year! to me the opportunity of doing them service is worth more than the sum the kiln cost in building, and I cannot part with it so cheaply: remember, "If ye do good to them that do good to you, what thank have ye?" I knew a close-fisted old farmer, of whom his neighbor asked the favor of passing one of his upper fields with his crop, which would shorten the distance to his barn; the old fellow hesitated so long, that at last, suspecting his neighbor would think him unwilling to grant his request, he replied, "certainly, I will give you permission, but I have been considering whether there is not some way in which you can serve *me;* but as nothing strikes me at present, remember that you owe me a kindness." I have heard also of a lady, whose husband said to her, "My dear, I know you value yourself upon the close and saving manner in which you steer through life; but I know, likewise, that your neighbors and tradesmen do not respect you for it—now, for ten dollars a year, I will purchase for you one of the best characters in the town; that, I calculate, is about the sum you save by extra management." I knew, too, a noble minded old gentleman, whose son, his partner, wishing to overcharge an article in business met from his father this memorable rebuke, "My son, don't sell your birth-right to heaven, for a paltry dollar!"

FRANK.—Now I wonder if ever I shall be rich enough to be *very generous?*

FATHER.—Oh! my boy, don't stay till you are rich before you are generous; a generous disposition is worth all the riches in the world, for it will find the means of *gratifying its propensities,* as all other dispositions will. We have known many men who all their lives were accumulating riches for the purpose of endowing some magnificent charity at their death: such men have been justly charged with holding on to their wealth as long as they could, and then bestowing it, after it was no longer in their power to keep it, in a way to perpetuate their own memory—selfish to the end! While others there are, some of whom, blessed be God! are still, living among us, whose meat and drink it has been through life, to "go about doing good;" who,

"Do good by stealth, and blush to find it fame,"

Never let the difference in their dispositions be forgotten, or the very different reception that awaits them at that bar of account which we are taught to believe awaits us all in another world. Only just fancy one of these self-loving charitable characters approaching it, after death, when the question might be asked, "what name?" Answer, "A. B." "We have no entries on the credit side against that name." "Oh! but I have bequeathed two hundred thousand dollars for charitable purposes." "Well, then, you must wait until we see how these charities are managed, and you will be held accountable for all the misuse that is made of your wealth; while fifty per cent. will be deducted from the *good* that is done by it, as belonging to those who have the labor of seeing your bestowment properly appropriated; so you must wait, and be held accountable. You ought to have managed *yourself* the talents committed to your trust, and been generous and benevolent during your life, laying up treasures in heaven, and not upon

the earth; but you are not the only one who has mistaken charitable endowments after death for generosity and benevolence."

Now compare this reception with that which awaits *him* whose life has been one continued series of generous and beneficent actions, and to whose ancestor we are indebted even for the pleasant shade of our streets; who has *literally* "gone about doing good," until the body is all but sublimed, but whose soul, like the setting sun, seems larger as it declines! And that blessed *Saint* whose noble nature has placed her in the first rank of society, and to whom the daughters, once of affluence, raise their streaming eyes, in acknowledgment of all the kind and generous support extended to them in this, the time of their altered estate! Oh! what strains of joy will resound through the courts above, when such spirits are welcomed with the heavenly salutation, "Come ye blessed of my Father!"

FRANK.—Well, here are heavenly portraits! but how indescribable the difference between them and the endower of "a long row of alms houses!" I will be generous first, and then I will try to get rich, that I might be able to *indulge my propensities.*

FATHER.—Our conversation has taken a singular turn but it has been occasioned, I suppose, *by the mild and sweetening influence of the article which forms so large a portion of our compost heaps!* you see it has *leavened the whole lump!* We will close by repeating those beautiful verses of Merrick's, which are ever present in my thoughts.

Blest, who with gen'rous pity glows,
Who learns to feel another's woes,
Bows to the poor man's wants his ear,
And wipes the helpless orphan's tear.

In ev'ry want, in ev'ry woe,
Himself thy pity, Lord, shall know,
Thy love his life shall guard, thy hand
Give to his lot the chosen band.

When languid with disease and pain,
Thou, Lord, his spirit shall sustain;
Prop with thine arm his sinking head,
And turn with tend'rest care his bed!

From the Yankee Farmer.

Cattle Show at Concord.

On Wednesday of last week, the Middlesex Agricultural Society held their annual festival at Concord.—The day was fine, and there was a great gathering of people, the intelligent and hardy yeomanry, the strength and support of the country.

The show in general was very good, and not only indicated the flourishing state of agriculture, but a deep interest in the cause, and its improving condition in various branches. The ploughing match was a display of good teams and judicious management. Ten single and nine double teams contended for the high honor of excelling. The work was done in good order, with expedition and generally in a very handsome manner.

The pens were well filled with excellent stock. In some particulars it was fine indeed. The large number of promising young cattle shows an increased attention to this business, which has been much neglected. As there is a vast difference in the breeds of stock, whether for labor, slaughter, or for the dairy, farmers should raise their own from such breeds as excel, and have the desired qualities for the purposes for which they are designed; for in buying unknown kinds, they can judge only from appearances, and are liable to be deceived. In all parts of the country more attention is now paid to this branch of economy, and much good will result from it. Among the fine specimens of cattle, Ichabod Stow, of Stow, exhibited a pair of two year old steers, weighing 2670 pounds, and a pair of fat oxen weighing 4125 pounds.

Some swine of fine form and good size, both of the Berkshire and native breeds. Crosses of the Mackey and Berkshire were superior. One exhibited by William Stearns, of Bedford, one year and three days old, weighed nearly 500 pounds; he was as *fat as butter.*

The domestic manufactures were not numerous, but they were highly creditable to the ladies, and their worthy example should stimulate others to follow it, and produce in their own families the substantial articles of comfort, taste and ornament, instead of producing from abroad, at a high price, fabrics of less substance and value.

The exhibition of fruir was very fine indeed; apples, pears, peaches and grapes, large, fair, beautiful, and of delicious flavor. Some vegetables of a superior order, accounts of which would seem almost incredible. One Morus Multicaulis tree, raised by Philip P. Spaulding, Chelmsford, from a single bud last spring, was six feet high, with several branches two feet long; this is surely a monstrous growth for one season with so little to start from. One mammoth squash weighed 161 pounds, raised by David Stetson, Lincoln. Thomas Bent, of Sudbury, raised nine Philadelphia pumpkins or squashes from two seeds, weighing 845 pounds.

Mr. Colman delivered a very interesting, instructive and amusing address. The dinner table was attended by a very large company who exhibited a zeal and activity rarely excelled, and who did much credit to "mine host," Mr. Morse. The desert of fruit was of surpassing excellence and very honorable to the several gentlemen who presented fine lots for the occasion. The premium cider was remarkably mild, pure and pleasant, far superior to that stuff called wine, made up by a compound of alcohol, coloring matter, and other harmless and injurious ingredients.

One thing, much to the honor of this section of the country, is worthy of notice. That is, the sobriety and consequent good order that every where prevailed. So far from drunkenness, not even the symptoms of that direful disorder were perceived. What a beautiful moral scene, contrasted with that of some cities, towns and other places where many spend more for liquor to satisfy a vicious appetite, than for bread for their families.

Salting Butter.

On some occasions, a part or the whole of the butter may, perhaps, be disposed of fresh; but in general it must be salted before it can be carried to market; and as this part of the process requires as great nicety as any other, a few remarks on the subject shall be added.

Wooden vessels are, upon the whole, most proper to be employed for containing salted butter. These should be made of cooper work, very firm, and tightly joined with strong wooden hoops. It will be advisable to make them very strong where circumstances permit them to be returned to the dairy; for as it is a matter of considerable difficulty to season new vessels so well as that they shall not affect the taste of the butter, it is always advisable to employ the old vessels rather than make new ones, as long as they continue firm and sound. Oak is the best wood for the bottom, and staves and broad Dutch split hoops are to be preferred to all others when they can be had. Iron hoops should be rejected, as the rust from them will in time sink through the wood, though it be very thick, and injure the color of the butter; one iron hoop, however, should be put at the top, and another below beyond the bottom, the projection below the bottom being made deep for this purpose. No form is more convenient than that of a barrel, unless, perhaps, it be that of a truncated cone; with the apex uppermost; as in this case the butter never can rise from the bottom and float upon the brine, which it will sometimes do in the under part of a barrel when brine is necessary. But this inconvenience may be easily obviated, by driving a wooden peg with any kind of a head, into the bottom before it be filled, as the butter, closely embracing the head all round, will be kept perfectly firm in its place. An old vessel may be prepared for again receiving butter, by the ordinary process of scalding, rinsing, and drying; but to season a new vessel requires greater care. This is to be done by filling it frequently with scalding water, and allowing it to remain till it slowly cools. If hay or other sweet vegetables are put into it along with the water, it is sometimes thought to facilitate the process. But in all cases frequent effusions of hot water are very necessary, and a considerable time is required, before they can be rendered fit for use. The careful dairyman ought to be particular, or he may soon loose his character at market.

After the butter has been beaten up and cleared from the milk, as before directed, it is ready for being salted. Common salt is almost the only substance that has hitherto been employed for the purpose of preserving butter; but I have found by experience, that the following composition is, in many respects, preferable to it, as it not only preserves the butter more effectually from any taint or rancidity, but makes it also look better and taste sweeter, richer and more marrowy, than if the same butter had been cured with common salt alone. I have frequently made comparative trials with the same butter, and always found the difference much greater than could well be conceived. The composition is as follows: Take of sugar one part, of nitre one part and of the best Spanish great salt, or best rock salt, two parts: beat the whole into a fine powder, mix them well together, and put them by for use. Of this composition one ounce should be put to every sixteen ounces of butter.—*Anderson's Essays.*

Harvesting Beans.

It is not necessary that beans should be perfectly ripe before they are gathered. After they have become somewhat hard they may be pulled and put upon poles or scaffolding to dry, where they ripen. The crop may thus oftentimes be preserved from the frost, when if suffered to remain they would be ruined. Some pull them and lay them on the ground or grass beside the field to dry. This is not a good method, as the moisture arising from the ground, prevents their drying so fast as they will if somewhat elevated, and if it should rain, they will be beat into the dirt and injured.—*Maine Farmer.*

The American Farmer.

The following beautiful description of our most worthy and happy class of citizens, is from the address of the Hon. Mr. Rowan of Kentucky, to the citizens of Louisville. If any one would inquire why farmers are more worthy than any other class, this description will answer the question. They follow that profession which is most essential to the public good, and which is the foundation and support of all other useful employments; and the situations of farmers leads him to a higher state of moral worth than any other class will attain.

"Who is there among us that beholds the condition of our farmers, and does not exult in the consciousness that he is an American citizen, and pant to supersaid the character of farmer? The house of the farmer is the abode of the virtues. It is a school in which lessons of practical wisdom are taught. It is a temple in which the precepts of our holy religion are inculcated. It is the castle of sovereignty, for it is owned by its occupant and he is a freeman. It is the residence of peace, order, harmony, and happiness. Patriotism and piety unite in consecrating the place, and in suffusing every countenance with their unction. Indeed, what condition in life is so likely to produce that patriotism which will stand the country in stead upon emergencies, or that piety which will afford solace in extremity, as that of the farmer? He occupies a constant, intimate, and sensible relationship with Heaven. His mind is subdued with a love of order, by constantly beholding that which prevails around him. The regular succession of the seasons, of day and night, and of seed time and harvest, admonish him to the observance of regularity and order in all his conduct. He perceives that the sun and moon perform their circuits without loitering on the way; and learns from them that industry is required at his hands. He looks to Heaven, through its rains and dews, for the reward of his labors in the abundance of his crops. He makes the sacred volume of revelation the man of his council, and the source of his consolation. He unites with his wife and children in tones of supplication and strains of praise aronnd the family altar on the morning and evening of each day. He acknowledges no sovereign but Heaven and the people; he bows with *appropriate* reverence to the will of each, and exults in the freedom of his own; for his homage is a free-will offering, claimed at his hand by the convictions of his reason. His affections are conducted by his judgment and not by his fears, in his devotion. Matron chastity and infantile innocence sweeten, and religion hallows the atmosphere of his home, and render it irresistibly attractive. He loves his country because the farm and the domicil of which he is the proprietor, and with which his affections are indentified, are a part of that country. His patriotism is an essential part of his conscious identity. Connected by his affections with the soil, and by his piety with Heaven, it partakes of the stability of the former, and the purity of the latter. It inspires him with holy enthusiasm in the cause of his country, when its honor or its safety is concerned. It is electric, and strives every contiguous bosom, till it pervades the community."—*Yankee Farmer.*

From the Boston Cultivator.

Recipe for making Cake alone.

First weigh your butter, sugar, and flour—select your eggs, and prepare your spices; then spit your meat for dinner, and prepare your vegetables; then set your oven heating, and get your cake pans ready. Put your meat to the fire. Break your eggs, yolks and whites together; then work your butter with a large spoon till it becomes white, then beat your eggs till froth enough has arisen to put to the butter at one time. Look if the fire burns well in the oven, and put another stick of wood on the andirons. Work your butter a little more, beat your eggs each time till you have froth enough for once, mixing it thoroughly with the butter and sugar. Put more wood in the oven, and proceed as above directed with the cake. Turn your meat, attend to your cake again, add flour when you choose. Put up the brands that have tumbled down; get more wood. Beat the cake, and then baste your meat; beat again before you put water over the fire to boil the vegetables in; beat the cake again, go to the front door, the bell rings, beat the cake. Turn and baste your meat; put up the fire, beat again; spread the coals over the bottom of the oven, and make some sour-milk biscuit for tea, and bake them with your cake; 'tis an excellent plan as it saves time. Beat your cake hastily, attend to your dinner; beat again, and if the oven is not ready, lay your table.

Charcoal Hams.

A writer in the American Farmer recommends to pack hams, after they have been smoked, in pounded charcoal. It keeps out the flies, and prevents the fœted smell and unpleasant taste too often found in hams exposed for sale.

Berkshire Pigs,

DIRECT from the stock of C. N. Bement, Albany, for sale by
THOMAS WRIGHT.
October 19 1839.–w3*w* Near Macedonville, Wayne Co. N Y.

THOROUGH BRED DURHAM BULL FOR SALE.

MAYDUKE.

COLOR, a fine roan. Beautiful symmetry in all his points. He was calved upon the 13th of February, 1837. Was got by Sir Walter out of Cherry.

Sir Walter was bred by Mr. Chrisp of Doddington, Northumberland, and was imported by Mr. Fergusson into Canada in 1834.—The sire of Sir Walter was Batchelor, Herd Book 1616. Dam, Frightly by Barmpton, (1677); Grand dam by Waverly, (2819); Great grand dam by a son of Washington, (674.)

Cherry was also bred by Mr. Chrisp and imported by Mr. Fergusson. Her color roan. She was got by Dunstan Castle; grand dam by a son of St. Albans, [2584]; great grand dam by Lawnsleeves, (365.) Cherry was sold into Kentucky, last year, for 300 dollars. For further particulars, apply to the Hon. ADAM FERGUSSON, Nelson Post Office, Upper Canada.

Nelson, October 8, 1839. oct 19–w1m

South Down and Bakewell Bucks For Sale.

THE subscriber will sell from fifteen to twenty of his South Down and Bakewell Bucks, mostly the latter breed, at his farm, West Hill, Skaneateles, Onondaga Co N. Y., if applied for soon.
October 12, 1839.–w2t* EDWARD BISDEE.

Splendid Bulbous Roots.

THE subscriber has just received, and offers for sale, a large assortment of Bulbous Flower Roots, comprising the finest varieties, just received from Amsterdam, viz:

Hyacinths; (double and single,) dark blue, porcelain blue, red, rosy colored, pure white with yellow eye, white with rose eye, and yellow with various eyes, 25 cents, or $2 50 per doz.

Tulips; splendid variegated, red, yellow and mixed, 12½ cents each, $1 per dozen, assorted. The assortment of fine tulips is very large, an object for those who wish to form a tulip bed.

Crown Imperials; assorted, of the most splendid colors and showy flowers, large roots, 25 cents each, (extra fine roots.)

Jonquilles; sweet scented, fine roots, 12½ cents each, $1 per doz.

Polyanthus Narcissus, fragrant, white with citron cups, extra sized roots, 12½ to 25 cents each.

Double Narcissus; fragrant, of all colors, 12½ cents each, $1 per dozen.

Spring Crocus, of all colors, 6¼ cents each, 50 cents per dozen.

Large Gladiolus, or Sword Lilies, 12½ cents each, $1 per dozen.

The above roots are of the same superior character as those sold the last season, and which gave such universal satisfaction; some of the Double Hyacinths having produced bells one inch and eight-tenths in diameter.

Purchasers are requested to notice that the above roots are not purchased at auction are all remarkable for their size, and for the beauty and delicacy of tint of their flowers.

It is unnecessary to enter into any detail respecting the merits of Dutch bulbs—their superiority over those of all other countries is well known—and for blooming in the winter season on glasses or in pots no other but Dutch roots will answer. From the subscriber's long experience in this peculiar branch of his business, he flatters himself that every Hyacinth (in particular) in his collection, will be found of the most beautiful description. Prices moderate.

WM. THORBURN, Seedsman,
North Market-street, opposite Post Office, Albany, N. Y.
N. B. Directions for cultivation gratis. Oct. 12, 1839.–w3t

Farm Stock and Farming Utensils AT AUCTION.

TO be sold by the subscriber at public auction, at his residence in the town of Sodus, the former Shaker settlement.—The Household Furniture consists of a Sideboard, a Marble Centre Table, Bureaus, Tables, Sofas, Mahogany and other Chairs, Bedsteads, Carpets, Mirrors, and Umbrella Stand and Crockery; together with a full supply of Cooking utensils, including two large Iron Boilers, a Mangle and other wash-room furniture; an Iron Safety Chest, and several Franklin and other Stoves, with a variety of other useful articles unnecessary to enumerate. The Stock consists of one pair of young valuable matched Bay Horses, two large chestnut Horses, one a valuable horse and well suited for single or double harness; one grey Mare, three yoke of fine Oxen, eleven good Milch Cows, a well bred three year old Bull, sixteen head of young cattle and calves, two hundred Sheep, Breeding Sows, and a large number of Shoats and Pigs, among which are a few of the pure Leicestershire breed, and some half-breeds. Carriages—An excellent Family Barouche; a handsome light leather topped Pleasure Carriage for two horses, with a neat Wagon body conveniently fitted to the same running gear. A two wheeled Buggy or Stanhope; a Car, a double sleigh, a Cutter; also a variety of double and single Pleasure Harnesses Farming utensils and farm produce, Wagons, Carts, Fanning Mills, Ploughs, Harrows, Chains, a Straw Cutter, and a variety of other implements, usual on a large farm. A quantity of Hay, with several acres of Potatoes, Carrots and Turneps, now in the ground.

The sale of the Household Furniture will commence at 10 o'clock on Tuesday the 22d day of October, and of the Horses, Carriages, Stock, Farming utensils and crops, on Wednesday the 23d, at 9 o'clock in the morning. Terms—All sums under $10, Cash; from that to $25 at three months; from that to $50 at 6 months, and on all sums above $50 one year with interest, to be secured satisfactorily in all cases at the time of sale. *Note.* None of the above articles will be sold at private sale previous to the auction. Persons from a distance who wish to attend the sale both days, will find good accommodations at Alton and at Sodus Point in the neighborhood of the place.

ALEX'R DUNCAN.
Sodus, September 24, 1839. oct4-w2t

Morus Multicaulis.

S. E. GIBBS & SON, who have been Mulberry and Silk Growers, for several years at Troy, N Y. wishing to increase their operations, have located themselves on Long Island, 5 miles south of the city of New York, and about 2 miles north of Fort Hamilton, on the west end of the Island, where the Steam Boats Monmouth, Wave, and Osirius, pass and repass daily. They offer to sell a part of their Morus Multicaulis, Alpine and Expansa Mulberry Trees, from 20 to 25,000 deliverable in November next. The trees are all growing in fine order, some of them are over 6 feet high, and very liberally branched. Their genuineness will not be questioned by any one who will call and see them which will be attended with very little trouble or expense being so near the city of New York.

They will be sold in lots to suit purchasers. Likewise a few thousand Silk Worm's Eggs, consisting of Sulphur, Peanut, Long Grays and 2 crop White; and at the same place a number of bushels of the celebrated Rohan Potatoe can be had.

Any communication for us must be addressed to Brooklyn P. O. Long Island.

Reference to Burdick & Wright, 235, Front st. New York.
Brooklyn, Sept. 5, 1839. sept14-w8tm2t

Farms for Sale.

THE subscriber offers for sale, a Farm containing 480 acres, situated in the town of Collins, Erie County, 2½ miles east of the village of Lodi, and 34 miles south of the city of Buffalo. The surface is undulating; soil principally a deep sandy loam, well adapted to grain or grass, admirably well watered by durable springs of pure water. 170 acres under good improvement, with commodious buildings. The timber land is covered with a heavy growth of Oak, Chestnut, Hemlock, White Wood, Cucumber, White Ash, Beach, Maple, and a sprinkling of Pine.

Twenty-five per cent of the purchase money will be required down, a liberal credit given for the residue.

Also—a farm containing 450 acres situated in the town of New Albion in the County of Cattaraugus, 2½ miles from the village of Waverly, and 11 miles south of Lodi. About 100 acres under improvement, and well watered. The timber is principally Beach, Maple, Elm, Bass Wood, White Ash and Butternut. This farm is peculiarly adapted to grazing.

JOSEPH PLUMB.
Lodi, Erie County, September 20. 1839. oct5w8tm2t

For Sale.

6,000 Morus Multicaulis Trees, by the subscriber, at his residence in the town of Gates. They are of the very best quality, and will be sold on liberal terms, by applying by letter, [post paid] or at his residence.

J C BRAINERD,
Gates, October 2. 1839. w6t*

Morus Multicaulis and Morettii.

ELLWANGER & ROGERS are prepared to make contracts to any amount, for genuine Morus Multicaulis and Morus Morettii; the Morrettii are hardy, and will stand the winter in this country.

Any persons living at a distance and wishing to purchase a large quantity to sell again, shall be supplied at the very lowest wholesale prices so as to admit of their selling at the same prices as other persons, and make a very handsome profit. Also Silk Worms Eggs.

E. & R. will supply orders to any extent for every kind of Fruit & Ornamental Trees, Shrubs, Vines, Hardy Plants, Bulbous Roots, Greenhouse or Parlor Plants, &c. &c.

September and October is the time for planting Bulbous Roots in the open ground, such as Tulips, &c. of which they have a very fine collection for sale. Cash paid for Grass Seed, Plum, Peach Stones, and Apple Pips. Greenhouse corner of Buffalo and Sophia-streets
Rochester, N. Y. sept14-wtf

For Sale,

A FEW thousand of the Morus Multicaulis trees, by the subscriber, at his farm, near Fairport, in Perinton, will be offered for sale, in lots to suits purchasers, on liberal terms. Persons who can make it convenient to call and examine them on the premises are requested to do so, before purchasing elsewhere All letters addressed to the subscriber shall receive prompt attention.

ZERAH BURR.
Perinton, Sept. 5, 1839. sept14tf

Notice.

CASH will be paid for any quantity of Peach and Plumb stones delivered at the Rochester Seed Store. M B. BATEHAM.
aug31

Multicaulis, Alpine, and other Mulberries.

WM. PRINCE & Sons, proprietors of the Linnæan Nurseries near New York, are ready to receive orders to any extent for all the varities of Mulberries including the Chinese Multicaulis, American Multicaulis, *raised from seeds*, and very hardy, Expansa Elata, Alpine, Canton, Broussa, Rose of Lombardy, Dandolo Pyramidalis, &c., the six first named of which surpass all others, and are placed in rotation according to merit. The prices will be moderate and terms easy, and priced Catalogues will be sent to every one desirous of purchasing. Fruit and ornamental Trees, Shrubs, Green House Plants, Bulbous Flower Roots, Field and Garden Seeds, Rohan Potatoes, &c. can be supplied, and priced Catalogus will be sent to every applicant.

WM. PRINCE & SONS,
Flushing, August 24th, 1839. aug31&t

Silk Business--Morus Multicaulis Trees.

THE subscriber is ready to receive orders for the true genuine Morus Multicaulis Trees delivered this fall. As orders are coming in now, it would be well for those who want, to apply early. They will be well packed so as to be sent to any part of the United States.

Having been extensively engaged in the culture of Silk for some years, particularly in the production of the Morus Multicaulis, he will be happy to give any information respecting the trees or feeding the worms, that may be required.

All letters [post paid] will meet with immediate attention if addressed to

EDWARD H. ARNOLD,
aug31w7t* Burlington, New Jersey.

Morus Multicaulis.

THE subscriber is prepared to furnish Morus Multicaulis (Mulberry) Trees, in large or small quantities, delivered any time this fall after the first of October. The trees will be raised from Roots, Layers and Cuttings, of thrifty growth and matured wood, and will be sold at prices in proportion to their size. October and November are the most favorable months to transport them to the Western States, or into Canada, or in any direction where they must be sent a distance by water communication. All orders from a distance, by mail, should be sent early, (post paid,) addressed to

E. H. MIX,
July 27, 1839.–w6m Avon, N. Y.

Morus Multicaulis Tree Agency.

THE subscriber now offers for sale some choice lots of the above Trees, warranted of the genuine kind. Also, some Brussa and Canton, now growing in different counties of this state, to be delivered in the fall, or on the ground as they now stand, viz:

In Cuyahoga county,	1 lot of		5,000
Do	do	1	6,000
Do	do	1	4,000
Do	do	1	1,000
Do	do	1	2,500
Do	do	1	800
In Portage county		1	20,000
Do	do	1	8,000
Do	do	1	6,000
In Stark county		1	4,000
Do	do	1	6,000

In Cuyahoga and Portage counties:
1 lot of Brussa....3,000 | 1 lot of Canton....3,000
1....."....2,000 | 1....."....6,000

Which will be sold in any quantity to suit purchasers, at fair prices, with others, the particulars of which are not yet received, by

JAMES HOUGHTON, Agent,
Cleveland City Seed Store.

☞ Persons who are desirous of disposing of their trees through my agency, are requested to forward particulars as early as possible, and the business will be transacted on liberal terms, and agencies are solicited. Cleveland, Ohio, Aug. 17–w3m-m1t

Horse Rakes.

AS some inquiry has been made through this paper relative to Horse Rakes, the subscriber would take this opportunity to say to its patrons, and all others, that he is offering to the public the latest improved Revolving Horse Rake, which can be had at the following places:

Rochester—C. Hendrix. *Auburn*—Hyell, Watrous & Co. *Elmira*—Robert Cevell, jr. & Co. *Burdett*—E. Baker & Co. *Ovid*—P. Himrod & Son. *Geneva*—H. G. Bushnell. *Waterloo*—J. I. Lundy & Co. *Seneca Falls*—J. C. Chapman. *Geddes*—S. H. Mann. *Syracuse*—Wright & Wheaton. *Ithaca*—Wm. R. Collins *Lenox*—Horace Hall. *Chittenango*— —— Crouse; and many other places not here mentioned.

Those who wish to purchase, would do well to give us a call.

AMOS HOLBROOK.
Whitesboro', June 12, 1839. jun 24

Farmers save your own Clover Seed.

THE subscribers having purchased the exclusive right of making, using and vending, in the counties of Monroe and Niagara, RITTENHOUSE'S PATENT CLOVER MILL, being the latest improvement, and the article now used in Pennsylvania and in Seneca county, would respectfully inform the farmers of those counties, that they will this fall furnish one or more PORTABLE MILLS in each of said counties, to be worked by horse power, which they will take to farmer's barns whenever required, and hull out their CLOVER SEED for them at the very cheap rate of One Dollar per bushel.—These machines will hull from one to three bushels per hour, according to the quality of the chaff. FARMERS will at once perceive the vast saving and convenience afforded to them by this invention, as instead of paying from SIX to SIXTEEN Dollars per bushel for their Clover Seed, and perhaps getting a quantity of Canada Thistle or other foul seed in the bargain, they can now save their own seed, know that it is clean, and have it hulled at their own barns, for the trifling expense of One Dollar per bushel!

For further information, application can be made, either personally or by letter, (post paid,) to the subscribers at Gaines, Orleans county.

CHANCY WOODWORTH & CO.
July 27, 1839.–w3m-m1t*

Miner's Patent Pump.

AMOS MINER'S SUPERIOR PATENT PUMPS, for Wells or Cisterns, manufactured by Dagget & Hanson, Jordon, Onondaga County; for sale at Bush & Velie's Store, Exchenge street Rochester, N. Y. G. C. MAURER, Agent.
Aug 24 w&mtf

Agricultural Warehouse and Seed Store.

79 Barclay-street, New-York.

AT this old established stand, the subscribers take pleasure in announcing to the public, that they have made extensive arrangements to accommodate farmers in all articles connected with husbandry, viz:—Agricultural implements, a full and fresh supply of Field and Garden Seeds, Fruit Trees, Durham Cattle, Chinese and Berkshire pigs, 10,000 Morus multicaulis Mulberry trees; Publications on Rural subjects, &c.

Published here the Rural Library, S. Fleet, editor, a few copies of 1st vol. for sale. The object of this work is to constitute a Library at the least possible expense. 2d vol., commencing with Professor Low's Elements of Practical Agriculture, with nearly 250 fine engravings; subscription $3. Subscriptions received for the Genesee Farmer, Cultivator, &c. &c.

J. W. WEAVER & CO.
April 20-wm1v 76 Barclay st. New-York

Rohan Potatoes for Sale.

THE subscriber is ready to receive orders for this valuable Potatoe, to be delivered after the first of Oct. The price will be two dollars per bushel, or five dollars per barrel delivered on the Canal if required. The quality of this Potatoe is so well established, that last spring many were sold at the seed stores for from 12½ to 25 cents a piece. All communications for the Rohans will be promptly attended to.

RAWSON HARMON, Jr.
Wheatland, Monroe Co. N. Y. Sep. 20th, 1839. w6t-m1

Election Notice.

SHERIFF'S Office, Monroe County, Rochester, 22d August, 1839.
A general Election is to be held in the county of Monroe, on the 4th, 5th, and 6th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed.

DARIUS PERRIN.

STATE OF NEW YORK, } ALBANY, Aug. 15, 1839.
Secretary's Office. }

To the Sheriff of the county of Monroe.

Sir—Notice is hereby given you, that the term of service of Chancey J. Fox, a Senator for the eighth Senate District of this State, will expire on the last day of December next, and that a Senator is to be chosen in that District, to which the county of which you are Sheriff belongs, at the General Election to be held on the fourth, fifth and sixth days of November next.

You will also take notice that a proposed amendment to the Constitution is to be submitted to the people at the said Election, at which the Electors are to vote, for the election of Mayors by the People—or against the Election of Mayors by the People.

At the same election, the following officers are also to be chosen, viz: Three Members of Assembly, for said County.

JOHN C. SPENCER.
Secretary of State.

Monroe Horticultural Garden and Nursery.

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer

April 1, 1838. ASA ROWE.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.

April 15, 1838. SAMUEL MOULSON.
N. B. Cash will be paid for a few thousand two years old APPLE TREES.